WHAT IS CLAIMED IS:

1. An apparatus for recognizing positive/negative intention using a fine change of gamma wave of a brainwave, comprising:

a brainwave detecting portion for detecting the brainwave from a head

5   of a user;

a brainwave amplifying portion for amplifying the brainwave detected from the brainwave detecting portion;

an A/D converting portion for converting the amplified brainwave received from the brainwave amplifying portion to one of a digital type; and

10   a recognizer for recognizing the positive/negative intention of the user by detecting the fine change of the gamma wave of the brainwave in the digital type, which is transmitted from the A/D converting portion.

2. The apparatus as claimed in claim 1, further comprising a control

15   portion for generating control commands to a peripheral output device in response to the positive/negative intention recognized in the recognizer.

3. The apparatus as claimed in claim 2, wherein the brainwave detecting portion has an electrode at a left frontal area of the user.

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4. The apparatus as claimed in claim 1, wherein the brainwave detecting portion has an electrode at a left frontal area of the user.

5. A method for recognizing positive/negative intention using a fine change of gamma wave of a brainwave, comprising:

a step of detecting a brainwave from a head of a user;

a step of receiving and amplifying the brainwave detected from the step of detecting the brainwave;

a step of converting the amplified analog brainwave to one of a digital type; and

a step of recognizing the positive/negative intention of the user by detecting the fine change of the gamma wave of the brainwave in the digital type, which is transmitted from the A/D converting portion.

6. The method as claimed in claim 5, further comprising a step of controlling for generating control commands to a peripheral output device in response to the positive/negative intention recognized in the step of recognizing the positive/negative intention.

7. The method as claimed in claim 6, wherein the recognition of the positive/negative intention in the recognition step is performed such that the fine change of an output of each frequency within a gamma wave band is sensed.

8. The method as claimed in claim 6, wherein the recognition step includes:

a step of receiving the brainwave of the digital type;

a step of calculating the fine change of frequency components included in the gamma wave band from the brainwave of the digital type; and

a step of determining positive/negative and presence/absence of the intention in response to the fine change.

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9. The method as claimed in claim 5, wherein the recognition of the positive/negative intention in the recognition step is performed such that the fine change of an output of each frequency within a gamma wave band is sensed.

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10. The method as claimed in claim 7, wherein the gamma wave band is in the range of 32 Hz to 40 Hz.

11. The method as claimed in claim 5, wherein the recognition step

15   includes:

a step of receiving the brainwave of the digital type;

a step of calculating the fine change of frequency components included in the gamma wave band from the brainwave of the digital type; and

a step of determining positive/negative and presence/absence of the

20   intention in response to the fine change.

12. The method as claimed in claim 11, wherein the fine change of the frequency components is calculated to be [P(first frequency) − P(second frequency)] / [P(first frequency) + P(second frequency)] or P(first frequency) /

14

[P(first frequency) + P(second frequency)], and the first and the second frequencies are ones of the gamma wave band.

13. The method as claimed in claim 11, wherein the determination step includes:

a step of determining that the intention is present when two peaks higher than a first predetermined threshold value are present, and that the intention is not present when the two peaks are not present; and

a step of determining the positive/negative intention by comparing a second predetermined threshold value with a distance between the two peaks.